

ICE LEAD ORIENTATION CHARACTERISTICS IN THE WINTER BEAUFORT SEA

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The directional orientations of leads in the winter ice pack of the Beaufort Sea are studied both spatially and temporally. Data from the European Earth Resources Satellite- 1 (**ERS - 1**) Synthetic Aperature Radar (**SAR**) in the form of images with **100m x 100m** pixel resolution were used. The lead ice pixels in each image were defined from the SAR images using a simple **thresholding** of the radar backscatter values. The orientations of the leads were derived using a lead skeletonization technique. The region covering the Beaufort Sea was sampled with from 82 to 93 images for each of four time periods during January through March of 1992, Results will be shown characterizing the spatial distribution of the lead directions and densities. Temporal results will characterize the persistence of the lead structures and orientations.